

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

5.6 B, 7
1. (currently amended): An image reading device for reading an image while conveying an original on which the image is recorded, comprising:

a plurality of light emitting element units, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being linearly disposed along the first direction, ~~and light emission of said plurality of light emitting element units being respectively separately controlled;~~

A
a light emission controller which respectively separately controls the light emission of the plurality of light emitting element units in accordance with a size of the original;

an optical member for irradiating light emitted from said plurality of light emitting element units across at least ~~an~~ a substantially entire width of the original in the first direction; and

photoelectric conversion elements which are disposed in correspondence with said plurality of light emitting element units, receive light that is one of transmitted through and reflected from the image, and conduct photoelectric conversion of the received light,

wherein the image is read while at least one ~~originals~~ original is conveyed, the original having a width dimension corresponding to a width dimension of one of said plurality of light emitting element units or a combined width dimension of at least two of said plurality of light

emitting element units.

2. (original): An image reading device according to claim 1, wherein said optical member is formed by a plurality of light-guiding members which are provided at positions respectively corresponding to positions of said plurality of light emitting element units, and said optical member guides the emitted light to a vicinity of the original and causes the emitted light to be continuous across at least the substantially entire width of the original and to be free of boundary lines.

A₁
3. (original): An image reading device according to claim 1, wherein two light emitting element units are provided and the image is read by causing a first direction central portion of one of or both of the light emitting element units to correspond with a first direction central portion of a conveying path of the original, in accordance with a first direction dimension of the original, a number of originals and a magnification at which the original is to be read.

4. (currently amended): An image reading device for reading an image while conveying an original on which the image is recorded, comprising:

a plurality of light emitting element units, at each of which a plurality of light emitting elements are arranged along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being disposed along the first direction, and light emission of said plurality of light emitting element units being respectively separately controlled;

a light emission controller which respectively separately controls the light emission of the plurality of light emitting element units in accordance with a size of the original;

an optical member for guiding light emitted from each of said plurality of light emitting

element units such that the light is irradiated to the original;

an original carrier for positioning the original at a predetermined position and conveying the original; and

a light receiving section for receiving light that is one of transmitted through and reflected from the original;

wherein, in accordance with the original which is set at said original carrier, relative positions, in the first direction, of said light receiving section, the original, said optical member and said plurality of light emitting element units can be altered and light emission of each of said plurality of light emitting element units is respectively separately controlled.

5. (original): An image reading device according to claim 4, wherein said optical member and said plurality of light emitting element units are movable in the first direction, a position of the original at said original carrier, a position of said optical member, and positions of said plurality of light emitting elements are determined in accordance with at least one of a first direction dimension of the original, a number of originals set concurrently at said original carrier, and a magnification at which reading is to be conducted.

6. (original): An image reading device according to claim 4, wherein said optical member is formed by a plurality of light-guiding members which are provided in respective correspondence with said plurality of light emitting element units.

7. (original): An image reading device according to claim 6, wherein each of said plurality of light-guiding members includes a light input section at which light emitted from one of said plurality of light emitting element units enters and a light output section from which the light exits, and end portions in the first direction of the output sections of adjacent light-guiding

members contact one another.

8. (currently amended): An image reading device for reading an image while conveying ~~an original~~ one or more originals on which the image is recorded, comprising:

A1
a plurality of light emitting element units, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the ~~original's~~ originals' conveyance direction, said plurality of light emitting element units being linearly disposed along the first direction, ~~and light emission of said plurality of light emitting element units being respectively selectively controlled in accordance with at least one of a first direction dimension of the conveyed original and a number of the conveyed original;~~

a light emission controller which respectively selectively controls the light emission of the plurality of light emitting element units in accordance with at least one of a first direction dimension of the conveyed originals and a number of the conveyed originals;

an optical member for irradiating light emitted from said plurality of light emitting element units across at least ~~an~~ a substantially entire width of the ~~original~~ originals in the first direction; and

photoelectric conversion elements which are disposed in correspondence with said plurality of light emitting element units, receive light that is one of transmitted through and reflected from the image, and conduct photoelectric conversion of the received light.

9. (currently amended): An image reading device according to claim 8, wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the number of conveyed originals which are conveyed in parallel[[:]].

10. (currently amended): An image reading device according to claim 8, wherein light

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application No. 09/588,345

emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first direction dimension of the conveyed ~~original~~ originals.

11. (currently amended): An image reading device according to claim 8, wherein said optical member is formed by a plurality of light-guiding members which are provided at positions respectively corresponding to positions of said plurality of light emitting element units, and said optical member guides the emitted light to a vicinity of the ~~original~~ originals and causes the emitted light to be continuous across at least the substantially entire width of the ~~original~~ originals and to be free of boundary lines.

A₁
12. (currently amended): An image reading device according to claim 8, wherein two light emitting element units are provided and the image is read by causing a first direction central portion of one of or both of the light emitting element units to correspond with a first direction central portion of a conveying path of the ~~original~~ originals, in accordance with a first direction dimension of the ~~original~~ originals, a the number of originals and a magnification at which the ~~original~~ originals are to be read.

13. (original): An image reading device according to claim 8, wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first direction dimension and the number of originals which are conveyed in parallel.

14. (new): An image reading device according to claim 1, wherein said photoelectric conversion elements comprise a three-line charge coupled device (CCD).

15. (new): An image reading device according to claim 1, wherein said optical member comprises an acrylic block having a substantially trapezoid column shape.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/588,345

16. (new): An image reading device according to claim 1, wherein each of said plurality of light emitting element units comprises an LED chip group.

17. (new): An image reading device according to claim 1, wherein an amount of light output from each of said plurality of light emitting element units is separately controlled.

18. (new): An image reading device according to claim 1, wherein said light emission is respectively separately controlled in accordance with a size of the original and a density of said image.

19. (new): An image reading device according to claim 4, wherein said photoelectric conversion elements comprise a three-line charge coupled device (CCD).

20. (new): An image reading device according to claim 4, wherein said optical member comprises an acrylic block having a substantially trapezoid column shape.

21. (new): An image reading device according to claim 4, wherein each of said plurality of light emitting element units comprises an LED chip group.

22. (new): An image reading device according to claim 4, wherein an amount of light output from each of said plurality of light emitting element units is separately controlled.

23. (new): An image reading device according to claim 4, wherein said light emission is respectively separately controlled in accordance with a size of the original and a density of said image.

24. (new): An image reading device according to claim 8, wherein said photoelectric conversion elements comprise a three-line charge coupled device (CCD).

25. (new): An image reading device according to claim 8, wherein said optical member comprises an acrylic block having a substantially trapezoid column shape.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/588,345

26. (new): An image reading device according to claim 8, wherein each of said plurality of light emitting element units comprises an LED chip group.

A1
c'2
27. (new): An image reading device according to claim 8, wherein an amount of light output from each of said plurality of light emitting element units is separately controlled.

28. (new): An image reading device according to claim 8, wherein said light emission is respectively separately controlled in accordance with a size of the originals and density of said image.
